**IT Applications, Unit 4**

**Security and ethical considerations, Ch 8, p 294**

**Emerging technologies, Cloud Computing, p 305**

**The advantages and disadvantages of using cloud computing for storing, communicating and disposing of data and information.**

**What is cloud computing?**

1. Provide a definition for cloud computing?

Cloud computing is a form of storage; it is located offsite and provides convenient, up-to-date and on-demand applications (resources) that can be maintained with minimal effort and financial outlay to businesses. To make use of cloud computing an organisation needs reliable access to the internet (this generally also has to be fast access).

**Implications for businesses**

1. Distinguish between the following types of clouds:
   1. Public cloud

A public cloud is when a business can access web services via a third party who shares resources and costs on a utility basis. For example businesses might pay a set cost per month to access web services or they may be able to gain access to the software fir free but with restrictive features,

* 1. Community cloud

A community cloud refers to a cloud consisting of a group of organisations which have similar needs who seek to share infrastructure. An example of this is a group of financial companies that have banded together to ensure that their cloud has a higher level of security or it complies with the polices that affect them.

* 1. Hybrid cloud

A hybrid cloud refers to a cloud that allows a business to access a number of clod services in both a public and community environment.

* 1. Private cloud

Private cloud computing takes advantage of the strengths of a cloud environment, but is tailored to suit a private client. For example private clouds may have higher levels of security, to enable businesses to adhere to policy requirements, for example a medical institution may use a private cloud as they have to adhere to Health Records Act. One significant disadvantage of this form of cloud computing is its cost especially in relation to options like public and community clouds.

**Advantages and disadvantages of using cloud computing**

From the text and also from the Articles:

“Guide to cloud computing”

“Steven Levy on the Perils of Cloud Computing”

**Complete the following:**

**Advantages**

1. List the advantages of this type of computing.

* It decreases the amount of software licensing and software installation needed to keep computers up-to-date. Technical staff can be used for other tasks.
* The cost off accessing applications is often related to the amount of usage, not per user (as is the case of traditional software licensing agreements).
* Less effort is needed to access and trail new software.
* Software updates occur within the cloud so users do not have to wait for technical departments to install updates on each individual desktop or laptop.
* Businesses can keep their current computers longer as most of the processing power is accessed through the cloud. Access to services can be perceived as more reliable as many cloud computing providers have redundant servers to provide business continuity.
* Businesses will require less storage hardware as majority of the data is stored in the cloud.
* The storage of data occurs within the cloud. It is distributed across a range of locations to ensure that all is not lost in the event of a natural disaster.
* If the use of the cloud is for communicating information the organisation will not have to maintain an email server.
* When using cloud computing if you lose a device you do not use everything, as much of the data will be stored in the cloud.
* Cloud computing provides users will a fast service that does not take long to bootup.
* The service can be quickly scaled up or down if necessary.
* The use of cloud computing allows for increased mobility as they can be accessed from anywhere at any time (as long as there is internet access).

**Disadvantages**

1. List the disadvantages of cloud computing.

* If a business is dependent on the cloud for all their access to the internet, many will need to install redundant internet connections, so that if one provider has an outage, access will continue through a secondary provider.
* The security of the data is only as good as the security within the cloud, so businesses will need to ensure that passwords are maintained and that they apply the privacy principles in the handling and use of data.
* If using the cloud for communicating data and information, then the business will not have to maintain an email server, but the business will need to be more aware of the use of effective passwords to protect online information.
* Cloud computing can be hard to gain access to in areas where there is no truly high-speed broadband (many cloud computing cloud computing companies assume an infrastructure that people do not have access to).
* As cloud technologies are still new there is not a full assurance that companies will have the same protection as the information stored on personal hard drives.

**Darcie Anderson**